

APPENDIX G7

LAND USE

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Acronyms/Abbreviations

Delta	Sacramento-San Joaquin River Delta
NWR	National Wildlife Refuge
Se	selenium
WMA	Wildlife Management Area

This appendix evaluates the alternatives for impacts to two types of land use: recreation and agriculture. Additional information on land uses is provided in Appendix G8, Aesthetics.

G7.1 RECREATION

G7.1.1 Affected Environment

G7.1.1.1 *Physical Environment*

Recreation in the Central Valley portion of the study area consists mainly of wildlife viewing and hunting in wildlife refuges or wildlife management areas. Most recreation activities associated with these areas are associated with the presence of waterfowl and upland game. Some wildlife areas are open to the public with hiking trails, viewing areas, camping, hunting, and self-guided tours, in addition, to limited fishing in some of the wildlife areas. Also numerous private hunting clubs provide opportunities for members to hunt ducks, geese, and pheasants.

Most visitation to the wildlife refuges and management areas occurs during winter when the waterfowl are present. Approximately 45 percent of the total use occurs between October and January, with June through August use at approximately 20 percent of total use. All hunting occurs between October and January, and fishing occurs year-round (Reclamation 1997).

The existing San Luis Drain passes through several wildlife areas, including numerous duck ponds, the Los Banos Wildlife Management Area (WMA), the San Luis National Wildlife Refuge (NWR), the Grasslands WMA, and the North Grasslands WMA. Hunting of ducks, geese, and pheasants is permitted between October and January in the San Luis NWR and in Los Banos WMA. Fishing is also permitted in these areas. San Luis NWR provides self-guided tours, and camping is permitted at the staging areas during hunting season. Camping is also permitted at Los Banos WMA in the parking lots, and the management area is open to hiking and bike riding all year.

Both Delta Disposal Alternatives would include reuse and treatment systems, use of the existing San Luis Drain, and continuation of open canal and closed pipes to disposal areas in the Delta. There would be an estimated 27,200 acres of reuse and 160 acres of selenium (Se) treatment facilities for both alternatives.

For both Delta Disposal Alternatives, the potential alignment would begin in the northwestern portion of the San Luis NWR and would pass through the China Island area of the North Grasslands WMA. The alignment would then be located near several small, regional parks, but would not actually pass through any. Included are Laird Park (near Grayson), South County Regional Park and San Durham Ferry State Recreation Area (near San Joaquin), Clifton Court Forebay (south of Discovery Bay), and Contra Loma Regional Park and Antioch Municipal Reservoir (near Antioch).

For the Delta-Chippis Island Disposal Alternative, the potential alignment passes by an existing powerplant in Pittsburg and does not cross any recreation lands. For the Delta-Carquinez Strait Disposal Alternative, the alignment continues west to Crockett. From Pittsburg, the route first follows the Southern Pacific and AT&SF rail lines to Concord Naval Weapons Station. There the route follows the Southern Pacific rail line to Martinez, along Martinez Waterfront Regional

Shoreline, past Port Costa, to Crockett. Both alignments are closed pipe from an area just north of Brentwood.

Recreation activities in the Delta include motor boating, fishing, swimming, waterskiing, and sailing with motor boating and fishing leading in popularity. Approximately 20 public and more than 100 commercial recreational facilities that provide rentals, services, camping guest docks, fuel, supplies, and food are located in the Sacramento-San Joaquin River Delta (Delta). Sport fishing in the Delta occurs year-round and may take place on private vessels or from shore. Other recreation activities in the Delta include overnight camping, picnicking, photography, bicycling, hunting, and wildlife observation. Numerous private waterfowl and pheasant hunting clubs exist in the Delta region as well.

The Ocean Disposal Alternative consists of approximately 27,200 acres of reuse and does not include any Se treatment. This alternative has 177 miles of pipe and tunnel that does not cross through any recreation areas. In one area, the alignment of this alternative would pass just to the north of Camatti Park along the headwaters of the Estrella River, northeast of Paso Robles.

The Point Estero outfall consists of approximately 1.5 miles of pipeline off the coast and a diffuser at the end of the pipeline 200 feet below sea level. South of Point Estero in nearby Cayucos, sea kayaking, skin diving, surfing, and swimming are all popular water activities. In addition, deep sea fishing tours can be booked from the south out of Morro Bay or the north at San Simeon.

Cayucos Land Conservancy, formed in March, 1999, was recently granted a perpetual conservation easement (issued March 3, 2000) over the coastal terrace that stretches from Cayucos to Villa Creek. California Department of Parks and Recreation received fee ownership. As a result of the easement, Cayucos Land Conservancy plans to keep the land “as is” and plans to actively participate in the development of a long-term management plan (www.cayucos.org/clc/index.html).

The In-Valley Disposal Alternative consists of 65 miles of pipeline, two evaporation ponds, and mitigation areas. The northern evaporation pond would be approximately 2,368 acres, and the southern pond would be an estimated 2,695 acres. Mitigation acreage for these evaporation ponds would range from 3,200 to 6,400 acres. In addition, 26,700 acres would be used for the reuse facilities.

G7.1.1.2 *Regulatory Environment*

Several Federal and State regulations could be applicable for recreation resources and are described in Appendix F. Included are the Wild and Scenic Rivers Act of 1968, California Wild and Scenic Rivers Act, Wilderness Act of 1964, as amended, and Federal Water Project Recreation Act. No wild and scenic rivers are located within the study area so neither the Federal nor State regulations would apply. In addition, no wilderness areas are in the study area so the Wilderness Act would not be applicable.

The Federal Water Project Recreation Act requires that recreation and fish and wildlife enhancement be given full consideration in Federal water development projects; however, these alternatives are drainage options, and as such, would not have any water development components. The evaporation ponds would be located and designed to discourage any wildlife use. The mitigation areas, while they would encourage wildlife use and could provide

recreational value, are also not part of a water development project. Thus, the Federal Water Project Recreation Act would not be applicable to this project.

G7.1.2 Environmental Consequences

G7.1.2.1 Key Impact and Evaluation Criteria/Issues

There are two impact criteria for recreation resources:

- Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?
- Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Another issue that could impact recreation would be the location and design of any mitigation wetlands and ponds. Wildlife currently frequent numerous duck ponds and wetland areas in the study area.

G7.1.2.2 Methodology/Assumptions

To assess the environmental consequences of the project on recreation resources, the potential routes and alternative features developed during the San Luis Drain Feature Re-evaluation effort were evaluated. The miles of tunnel and pipe, acres of Se treatment facilities, and acres of evaporation ponds and mitigation facilities are shown in Tables 5.3-2, 5.4-1, 5.4-3, and 5.5-1 contained in the alternative descriptions.

The pipeline and tunnel routes as well as the estimated location of treatment facilities, evaporation ponds, and mitigation areas were checked to the TOPO! feature maps and DeLorme gazetteer maps for identification of recreation areas (TOPO! 2001; DeLorme 1998). In addition, two GIS layers – Public Lands and Parks – were checked against the possible alignments for recreation uses (ESRI, undated).

G7.1.2.3 Environmental Impacts

No Action Alternative

The No Action Alternative would consist of reasonably foreseeable future conditions without drainage service alternatives. A key component of the No Action Alternative is about 70,000 acres of land retirement. Some reuse due to the existing Grassland Bypass Project would occur, and existing pilot projects that could utilize reuse and treatment systems would continue in the area.

With no drainage service to the study area, it is possible that salts and Se could accumulate in some areas and reduce the viability of the lands for wildlife. Recreation use could be reduced if some areas with hunting or wildlife viewing potential were put out of production. In addition, fishing in the nearby wildlife refuges could be affected as well if the salts or Se levels became

elevated due to unplanned discharges within the watershed from storm events. Thus, the No Action Alternative has the potential to adversely affect recreation.

Ocean Disposal Alternative

This alternative would consist of a system of tunnels, pipelines, and pumps to direct the drainage from the Northern Area south and west to Point Estero on the northern edge of Estero Bay. This alternative includes drainage reuse but does not include any treatment systems. The drainage reuse areas would not increase recreation in the area nor would any new recreation areas need to be constructed.

Features of this alternative do not cross through any recreation areas. The alignment of this alternative would pass just to the north of Camatti Park along the headwaters of the Estrella River, northeast of Paso Robles. This alternative consists of approximately 175 miles of pipeline and 2.1 miles of tunnel. The potential pipeline alignment would follow existing roads as much as possible and avoid existing recreation areas, so no adverse impacts to recreation would occur.

At Point Estero, the pipeline is either buried in or suspended from the seabed approximately 1.5 miles out into the Pacific Ocean. Then, the drainage is released through the diffuser into the water 200 feet below sea level. Although ocean-based recreation occurs in the area, including sea kayaking, surfing, and deep sea fishing, it is very unlikely that diffusing of the drainwater would be noticed. Thus, no impact to recreation would occur nor would additional recreation facilities need to be constructed.

Delta-Chippis Island Disposal Alternative

This alternative would include the reuse and treatment system, use of the existing San Luis Drain, and continuation of open canal and closed pipes to a disposal area in the Delta near Chippis Island. There would be an estimated 27,200 acres of reuse and 160 acres of Se treatment for this alternative.

Conveyance of the drainwater would be by open canal and closed pipeline for approximately 190 miles. The potential route for both Delta Disposal Alternatives follows the same alignment from the continuation of the existing San Luis Drain to the Pittsburg area. The route would begin in the northwestern portion of the San Luis NWR and would pass through the China Island area of the North Grasslands WMA. The first section of the new alignment would consist of closed pipeline; thus, no further attraction for wildlife contributing to an increase in recreation would occur. Several recreation areas are located in the vicinity of the rest of the route (up to Pittsburg), but this alternative does not cross through any of these recreation areas.

At Pittsburg, this alternative continues as closed pipeline along the edge of a powerplant to the Delta. There, the buried pipeline extends approximately 1 mile into the Delta where the treated drainwater would be released. Although water-based recreation, such as fishing and waterskiing, is very popular in the Delta, the buried pipeline would not affect these uses past the construction period. The existing powerplant is already in an industrial area where recreation is limited. No impact to recreation would occur nor would any additional recreation facilities need to be constructed due to this alternative.

Delta-Carquinez Strait Disposal Alternative

This alternative follows exactly the same route and has the same reuse and treatment facilities as the Delta-Chippis Island Disposal Alternative to the Pittsburg area. There, the Delta-Carquinez Strait Disposal Alternative continues as closed pipeline for another 18.9 miles to Crockett. The route first follows the Southern Pacific and AT&SF rail lines to Concord Naval Weapons Station. Then, the route follows the Southern Pacific rail line to Martinez, along Martinez Waterfront Regional Shoreline, past Port Costa, to Crockett. Although this conveyance is right along the shoreline and passes through Martinez Waterfront Regional Shoreline, the route follows the existing rail line the entire way. Thus, existing recreation would not be affected by this alternative.

In-Valley Disposal Alternative

This alternative consists of 65 miles of pipeline, two evaporation ponds, and mitigation areas. The northern evaporation pond would be approximately 2,368 acres, and the southern pond would be an estimated 2,695 acres. Mitigation acreage for these evaporation ponds will range from 3,200 to 6,400 acres. In addition, 26,700 acres would be used for reuse facilities.

Near the coast, the pipeline alignment would cross through a segment of the Cayucos Land Conservancy's perpetual conservation easement property just south of Villa Creek. The pipeline here would be underground, and all efforts would be made to restore the land to a natural state.

The evaporation ponds have the potential to be attractive to wildlife. To protect wildlife from the salts and Se accumulating in these areas, the ponds would be designed and operated to be as unattractive to birds as possible. The possible general location of the northern evaporation pond is west of Tranquility, and the approximate location of the southern pond is west of Lemoore Naval Air Station, although specific sites have not been selected. Both of these areas are unpopulated and are far south of the wildlife refuges and management areas.

With the creation of the evaporation ponds, 3,200 to 6,400 acres of alternative habitat for mitigation would be constructed, much of which would be developed into managed wetland habitats. It is possible that some of the waterfowl currently using known wildlife refuges or duck clubs could use these newly created wetlands, and they could be located near existing refuges or wildlife management areas. However, the future management of these mitigation lands is uncertain, and it may be that they could be managed for recreation, such as hunting or wildlife viewing, as are current refuges. Thus, it is anticipated that recreation would not increase with this alternative. Although the location of recreation use might shift, overall recreation in the area would be unaffected.

G7.2 AGRICULTURE

The San Luis Drainage Feature Re-evaluation lands consist of various landforms from west to east: foothills, fan-terraces, alluvial fans (upper and mid), alluvial fans (lower), basin rim, and basin. Because the drainage problem involves the shallow-water table and soils within 20 feet of the ground surface, the focus is on the uppermost 5 to 10 feet of the soil column. The lower alluvial fans and basin rim lands are generally affected by shallow groundwater tables (54 percent) (Reclamation 1991).

G7.2.1 Affected Environment

Most of the lands are suitable for growing many crops. The Westlands Water District area contains more than 400,000 acres suitable for growing any crop and about 200,000 acres suitable for only salt-tolerant crops. About 5,000 acres of land appear idle because of salinity and drainage problems; some of these lands probably were never reclaimed from native conditions. Most of these lands were classified nonarable by the Bureau of Reclamation. A large number of arable acres in the western portion of Westlands are idle in dry years because of an inadequate water supply. About 1,000 acres of basin lands are not suitable to grow any crop. The Northerly Area also has lands suitable for growing all crops and some suitable for only salt-tolerant crops.

Over the years, some lands have been retired from agriculture because the groundwater drainage problem was too severe. The Bureau of Reclamation has purchased some of those lands (see Section 5.1).

G7.2.2 Environmental Consequences

This section focuses on agricultural land use. See Section 6.6 and Appendix G6 for more detailed analysis of impacts to agricultural productivity.

G7.2.2.1 *No Action Alternative*

The No Action Alternative assumes the San Luis Drainage Feature Re-evaluation would not be implemented to improve the drainage and salt outlet problem. Each district and the growers would continue to attempt to solve the drainage problem on their lands but without major improvements.

Under this alternative, agricultural productivity in the area would continue to decline. Additional lands would be retired from productivity, decreasing the overall economic conditions in the area.

G7.2.2.2 *Ocean Disposal and Delta Disposal Alternatives*

Under any of the out-of-valley alternatives, the drainage conditions would improve significantly, and agricultural production would gradually increase.

G7.2.2.3 *In-Valley Disposal Alternative*

Under this alternative, drainage conditions would improve, but some lands would be taken out of production to locate the evaporation ponds and associated mitigation facilities. Agricultural productivity would improve but not as significantly as with the two out-of-valley alternatives.

G7.3 REFERENCES

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